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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,195	11/26/2003	JAMES YANG	12251-US-PA	1194
31561 7590 02/22/2008 JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN			EXAMINER ALIA, CURTIS A	
			ART UNIT	PAPER NUMBER
			2616	
			NOTIFICATION DATE	DELIVERY MODE
			02/22/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USA@JCIPGROUP.COM.TW

Office Action Summary	Application No.	Applicant(s)	
	10/707,195	YANG, JAMES	
	Examiner	Art Unit	
	Curtis Alia	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-10 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,4-10 and 12-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 November 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's amendment filed on 23 November 2007 has been entered. Claims 1, 3 and 11 have been cancelled, claims 2, 4, 10 and 12 have been amended and no claims have been added. Claims 2, 4-10 and 12-15 are pending in this application, with claims 2 and 12 being independent.

Drawings

The submission of replacement figures 1 and 2 have been entered and accepted.

Allowable Subject Matter

1. The indicated allowability of claims 3, 4, 11 and 12 is withdrawn in view of the newly discovered reference(s) to Son et al. (US 2006/0013195). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 2, 4, 8-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou (previously cited 2003/0169860) in view of Sharma (previously cited 2002/0075815), Lukin (previously cited US 6,973,169), Fandrianto et al. (newly cited US 7,006,455) and Son (newly cited US 2006/0013195).

Regarding claim 2, Chou discloses a telephone network structure comprising a plurality of IP phones (see figure 2, gateway 140) wherein each of the IP phones with a built-in gateway has an IP terminal (see figure 2, RJ-45 port), a plain old telephone service terminal and a local

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telephone terminal (see figure 2, RJ-11 port(s) and paragraph 17, lines 8-19, any device capable of audio I/O functions which has at least one network connection and at least one dial-up connection can be connected into the network).

Chou does not explicitly disclose that a signal entering any one of the three terminals is permitted to convert and transmit to the remaining terminals simultaneously. However, the above-mentioned claimed limitation is well-known in the art as evidenced by Sharma. In particular, Sharma teaches a data-over-voice system that is capable of receiving data on one port, digitizing the audio, and outputting the audio on another port, as well as sending data at the same time as performing a telephone call to the same recipient (see paragraph 109, the show-and-tell function allows the user to establish a data over voice connection, with full-duplex data and voice connections can be performed simultaneously). Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the system of Chou as taught by Sharma, since Sharma stated in paragraph 89 that such a modification would allow a user to send data to another user while performing an audio call with that same user over the same equipment.

Chou and Sharma do not explicitly teach that the IP phones are connected together in series by the IP terminal and the POTS terminal to form a telephone network and all of the IP phone with the built-in gateway server a function of telephone conference. However, Lukin from the same field of endeavor teaches the provision of connecting different elements, such as a computer and a telephone, in series through the network adapter and telephone adapter to enable converted signals to be transmitted between the ports/terminals (see column 3, line 60 through column 4, line 7). Thus, it would have been obvious to a person having ordinary skill in the art

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at the time of the invention to connect two network/telephone devices serially to achieve network connectivity between the devices so that they may share the same data channels. The serial connectivity of Lukin can be implemented into the system of Chou and Sharma by connecting two network devices (IP phones) at the network ports (RJ-45) to achieve a serial connection between the two devices. The motivation to combine the serial connection as taught by Lukin into the system of Chou and Sharma is that there would be no need for a separate switching device at the central office when making calls between these devices.

Chou, Sharma, and Lukin do not explicitly teach that a connection between multiple IP phones in one or more networks can be made to establish a telephone conference. However, this is a well-known feature of telephones in general, and is also well known in IP phones, as evidenced by Fandrianto (see abstract). Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include telephone conferencing capabilities to an IP phone network. A conferencing module can be added to each phone to mix incoming voice signals and can multicast a voice signal to each connected phone in the conference. The motivation to combine these features is that multiple packet-switched devices can connect together just as multiple regular telephones can connect together in a conference.

Chou, Sharma, and Lukin do not explicitly teach that the serially connected IP phones comprise at least a unit assembled from a pair of the IP phones such that the POTS terminals are an internally connected point and the IP terminals are externally connected. However, the above-mentioned claimed limitation is well known in the art as evidenced by Son. In particular, Son teaches of a configuration comprising VoIP phones coupled to gateways (see figure 1, gateways 50a and 50b), wherein the gateway is connected to a local POTS connection (see figure

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1, PSTN 1, considered a connection that is internal to the network) and an IP network (see figure 1, IP network 2, considered a connection that is external to the internet through routers and switches). In view of the above, having the system of Chou, Sharma, and Lukin and then given the well-established teaching of Son, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the system of Chou, Sharma, and Lukin as taught by Son, and Son states in paragraph 6 that the benefit of using this configuration is that when the IP network is unavailable, the PSTN network can still be used to make telephone calls.

Regarding claim 4, Son teaches that the internally connected point also connects with a local telephone (see figure 1, internal connection between gateway 50a, PSTN 1, and gateway 50b also includes all of the local telephones connected in the PSTN, such as telephone 71).

Regarding claim 8, Chou discloses that the IP phone with a built-in gateway processes voice signals (see column 3, lines 34-39)

Regarding claim 9, Chou discloses that the IP phone with built-in gateway processes voice and video signals (see column 3, lines 34-48).

Regarding claim 10, Chou discloses a telephone network system comprising a plurality of IP phones (see figure 1, IP phone 24) wherein each of the IP phones has a built-in gateway (see figure 2, gateway 140) providing an IP terminal (see figure 2, RJ-45 port), a plain old telephone service terminal and a local telephone terminal (see figure 2, RJ-11 port(s) and paragraph 17, lines 8-19, any device capable of audio I/O functions which has at least one network connection and at least one dial-up connection can be connected into the network).

Chou does not explicitly disclose that a signal entering any one of the three terminals is permitted to convert and transmit to the remaining terminals simultaneously. However, the

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above-mentioned claimed limitation is well-known in the art as evidenced by Sharma. In particular, Sharma teaches a data-over-voice system that is capable of receiving data on one port, digitizing the audio, and outputting the audio on another port, as well as sending data at the same time as performing a telephone call to the same recipient (see paragraph 109, the show-and-tell function allows the user to establish a data over voice connection, with full-duplex data and voice connections can be performed simultaneously). Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the system of Chou as taught by Sharma, since Sharma stated in paragraph 89 that such a modification would allow a user to send data to another user while performing an audio call with that same user over the same equipment.

Chou and Sharma do not explicitly teach that the IP phones are connected together in series by the IP terminal and the POTS terminal to form a telephone network and all of the IP phone with the built-in gateway server a function of telephone conference. However, Lukin from the same field of endeavor teaches the provision of connecting different elements, such as a computer and a telephone, in series through the network adapter and telephone adapter to enable converted signals to be transmitted between the ports/terminals (see column 3, line 60 through column 4, line 7). Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to connect two network/telephone devices serially to achieve network connectivity between the devices so that they may share the same data channels. The serial connectivity of Lukin can be implemented into the system of Chou and Sharma by connecting two network devices (IP phones) at the network ports (RJ-45) to achieve a serial connection between the two devices. The motivation to combine the serial connection as taught by Lukin

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into the system of Chou and Sharma is that there would be no need for a separate switching device at the central office when making calls between these devices.

Chou, Sharma, and Lukin do not explicitly teach that a connection between multiple IP phones in one or more networks can be made to establish a telephone conference. However, this is a well-known feature of telephones in general, and is also well known in IP phones, as taught by Fandrianto (see abstract). Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include telephone conferencing capabilities to an IP phone network. A conferencing module can be added to each phone to mix incoming voice signals and can multicast a voice signal to each connected phone in the conference. The motivation to combine these features is that multiple packet-switched devices can connect together just as multiple regular telephones can connect together in a conference.

Chou, Sharma, and Lukin do not explicitly teach that the serially connected IP phones comprise at least a unit assembled from a pair of the IP phones such that the POTS terminals are an internally connected point and the IP terminals are externally connected. However, the above-mentioned claimed limitation is well known in the art as evidenced by Son. In particular, Son teaches of a configuration comprising VoIP phones coupled to gateways (see figure 1, gateways 50a and 50b), wherein the gateway is connected to a local POTS connection (see figure 1, PSTN 1, considered a connection that is internal to the network) and an IP network (see figure 1, IP network 2, considered a connection that is external to the internet through routers and switches). In view of the above, having the system of Chou, Sharma, and Lukin and then given the well-established teaching of Son, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the system of Chou, Sharma, and Lukin as

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taught by Son, and Son states in paragraph 6 that the benefit of using this configuration is that when the IP network is unavailable, the PSTN network can still be used to make telephone calls.

Regarding claim 12, Son teaches that the internally connected point also connects with a local telephone (see figure 1, internal connection between gateway 50a, PSTN 1, and gateway 50b also includes all of the local telephones connected in the PSTN, such as telephone 71).

4. Claims 5-7 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou in view of Sharmin, Lukin and Son as applied to claim 2 above, and further in view of Chang et al. (previously cited US 2003/0091028).

For claims 5-7, Chou, Sharma, Lukin and Son teach all of the limitations with the exception that both the front and the end terminals of the telephone network structure operate in IP mode, both the front and the end terminal of the telephone network structure operate in a POTS mode, and the front and the end terminal of the telephone network structure operates in a POTS mode and an IP mode respectively. Chang, from the same field of endeavor, teaches the limitation that the system routes a voice telephone call from a first location to a second location using the IP network, then can route a voice telephone call from a second location to a third location using the PST network (see paragraph 16). Chang's invention also decides the best routes to use (whether IP network or PST network) to avoid congestion, so it may use IP network in either front or back end, and it may use PST network in either front or back end. Thus it would have been obvious to a person having ordinary skill in the art at the time of the invention to combine the adaptive routing of voice calls through both types of networks into the IP telephone system. This adaptive routing can be implemented into the IP telephone system by

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utilizing the gateway of Chou. The motivation to combine these teachings is that it provides an alternate route for calls that degrade in quality past a predetermined threshold.

For claims 13-15, Chou, Sharma, Lukin and Son teach all of the limitations with the exception that both the front and the end terminals of the telephone network structure operate in IP mode, both the front and the end terminal of the telephone network structure operate in a POTS mode, and the front and the end terminal of the telephone network structure operates in a POTS mode and an IP mode respectively. Chang, from the same field of endeavor, teaches the limitation that the system routes a voice telephone call from a first location to a second location using the IP network, then can route a voice telephone call from a second location to a third location using the PST network (see paragraph 16). Chang's invention also decides the best routes to use (whether IP network or PST network) to avoid congestion, so it may use IP network in either front or back end, and it may use PST network in either front or back end. Thus it would have been obvious to a person having ordinary skill in the art at the time of the invention to combine the adaptive routing of voice calls through both types of networks into the IP telephone system. This adaptive routing can be implemented into the IP telephone system by utilizing the gateway of Chou. The motivation to combine these teachings is that it provides an alternate route for calls that degrade in quality past a predetermined threshold.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

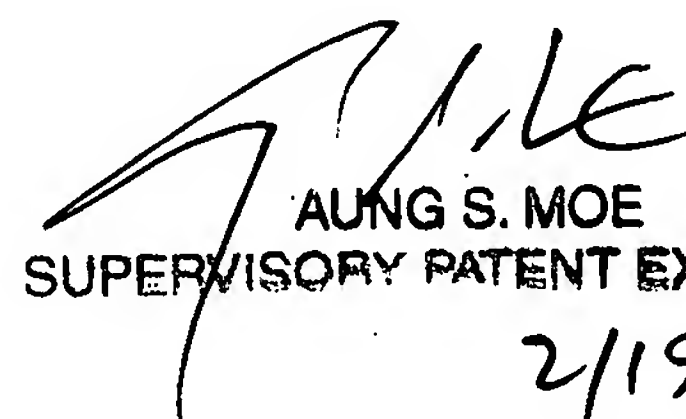
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis Alia whose telephone number is (571) 270-3116. The examiner can normally be reached on Monday through Friday, 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung S. Moe can be reached on (571) 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CAA


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SUPERVISORY PATENT EXAMINER
2/19/08